

transferring means;

plural vacuum processing chambers for processing, one by one, said substrates; [and]

a device having a first lock chamber in which said substrates are carried in and carried out, one by one, between said atmospheric transferring device and said vacuum transferring chamber and a second lock chamber in which said substrates are carried in and carried out, one by one, between said atmospheric transferring device and said vacuum transferring chamber, and

opening and closing devices for opening and closing one of the first and second lock chambers each time a substrate is carried into said one of the first and second lock chambers, one by one, and each time a substrate is carried out of said one of the first and second lock chambers, one by one,

wherein the method comprises the steps of:

taking out, one by one, said substrates from said cassette by said atmospheric transferring device;

carrying in a substrate taken out from the cassette, to one of said first and second lock chambers in air;

closing off said one of said first and second lock chambers, from said atmospheric transferring device, by using the opening and closing devices;

evacuating said one of said first and second lock chambers;

transferring said substrate to any one of said plural vacuum processing chambers from said one of said first

and second lock chambers in a vacuum, through said vacuum transferring chamber;

processing said substrate in said one of said plural vacuum processing chambers;

transferring said substrate, which has been subjected to processing, to one of said first and second lock chambers in the vacuum through said vacuum transferring chamber;

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closing said one of said first and second lock chambers, to which the substrate is transferred after the processing, from said vacuum transferring chamber, by using the opening and closing devices, and, after that, opening the one of the first and second lock chambers, having the substrate therein, to air, by using the opening and closing devices; and

taking out said substrate in said one of said first and second lock chambers, to which the substrate is transferred after the processing, by said atmospheric transferring device and receiving said substrate in said cassette.

2. (Amended) A method of transferring a substrate according to claim 1, wherein an opening and closing at an air side and a vacuum side of said first lock chamber, by using the opening and closing devices, and an opening [an] and closing at an air side and a vacuum side of said second lock chamber, by using the opening and closing devices, are controlled independently, respectively.